

Rabbit GAP43 Polyclonal Antibody | anti-GAP43 antibody

Phospho-GAP43 (Ser41) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329287	Rabbit	Human, Mouse, Rat, Monkey	ELISA, Immunocytochemistry, Immunofluorescence

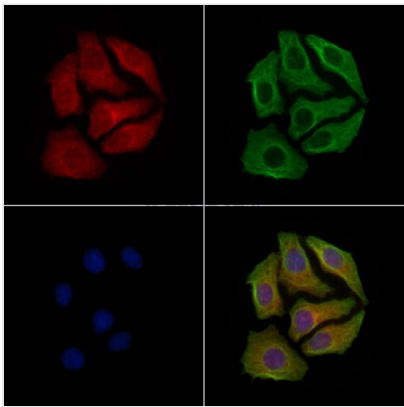
PRODUCT SYNONYMS

GAP43; Polyclonal Antibody; Phospho-GAP43 (Ser41) Antibody; Axonal membrane protein GAP 43; Axonal membrane protein GAP-43; B 50; Calmodulin binding protein P 57; F1; GAP 43; Growth Associated Protein 43; Growth-associated protein 43; Nerve Growth Related Peptide; Nerve growth related peptide GAP43; NEUM_HUMAN; Neural phosphoprotein B 50; Neural phosphoprotein B-50; Neuromodulin; Neuron growth associated protein 43; PP46; Protein F1; QtrA-11580; QtrA-13071; anti-GAP43 antibody

PRODUCT SPECIFICATIONS

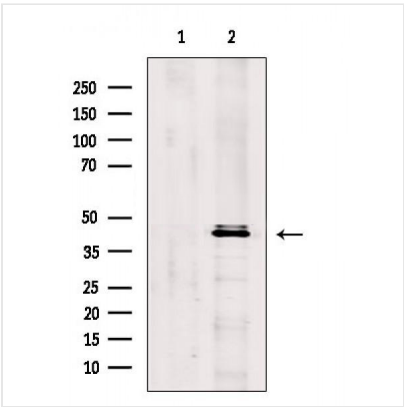
Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-GAP43 (Ser41) Antibody detects endogenous levels of GAP43 only when phosphorylated at Ser41.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-GAP43 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence)
Immunogen	A synthesized peptide derived from human GAP43 around the phosphorylation site of Ser41.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated (By similarity). Phosphorylation of this protein by a protein kinase C is specifically correlated with certain forms of synaptic plasticity (By similarity).Palmitoylation by ARF6 is essential for plasma membrane association and axonal and dendritic filopodia induction. Deacylated by LYPLA2.
Subunit Structure	Identified in a complex containing FGFR4, NCAM1, CDH2, PLCG1, FRS2, SRC, SHC1, GAP43 and CTTN (By similarity). Interacts (via IQ domain) with calmodulin (By similarity). Binds calmodulin with a greater affinity in the absence of Ca (2+) than in its presence (By similarity).
Similarity	Belongs to the neuromodulin family.
Subcellular Location	Cell membrane>Peripheral membrane protein>Cytoplasmic side. Cell projection>Growth cone membrane>Peripheral membrane protein>Cytoplasmic side. Cell junction>Synapse. Cell projection>Filopodium membrane>Peripheral membrane protein. Perikaryon. Cell projection>Dendrite. Cell projection>Axon. Cytoplasm. Note: Cytoplasmic surface of growth cone and synaptic plasma membranes.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

Staining HeLa cells(heat shock treatment) by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25 degree C. Samples were then incubated with primary Ab(AF3715) and mouse anti-beta tubulin Ab(T0023) for 1 hour at 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.The nuclear counter stain is DAPI (blue).



WB (Western Blot)

Western blot analysis of extracts from COS-7 cells(uv treatment), using Phospho-GAP43 (Ser41) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-GAP43 antibody	This protein is associated with nerve growth. It is a major component of the motile 'growth cones' that form the tips of elongating axons. Plays a role in axonal and dendritic filopodia induction.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	194248057
NCBI GeneID	2596
NCBI Accession #	NP_001123536.1
NCBI GenBank Nucleotide #	NM_001130064.1
UniProt Accession #	P17677; A8K0Y4
Molecular Weight	24,803 Da
NCBI Official Full Name	neuromodulin isoform 1
NCBI Official Synonym Full Names	growth associated protein 43
NCBI Official Symbol	GAP43
NCBI Official Synonym Symbols	B-50; PP46
NCBI Protein Information	neuromodulin; protein F1; neural phosphoprotein B-50; growth-associated protein 43; axonal membrane protein GAP-43; calmodulin-binding protein P-57; nerve growth-related peptide GAP43; neuron growth-associated protein 43
UniProt Protein Name	Neuromodulin
UniProt Gene Name	GAP43
UniProt Entry Name	NEUM_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.